

BODY ARMOR

AN OVERVIEW

OBJECTIVES

- IDENTIFY THE APPROXIMATE NUMBER OF LIVES SPARED SINCE INCEPTION OF SOFT BODY ARMOR
- BE FAMILIAR WITH EARLY FORMS OF PROTECTIVE DEVICES AND BALLISTIC VESTS.
- NATIONAL INSTITUTE OF JUSTICE RESEARCH
- IDENTIFY A SIGNIFICANT ACHIEVEMENT IN BODY ARMOR DEVELOPMENT IN THE 1970s

OBJECTIVES (con't)

- KNOW THE FOUR PHASES OF BODY ARMOR DEVELOPMENT BY THE NIJ
- KNOW THE SIX FORMAL ARMOR CLASSIFICATIONS AS ESTABLISHED BY NIJ STANDARD 0101.04

INTRODUCTION

- LIGHTWEIGHT BODY ARMOR HAS BEEN AVAILABLE FOR OVER 25 YEARS
- OVER 2,500 SAVES HAVE BEEN DOCUMENTED.
- INCLUDES CASES WHERE SERIOUS INJURIES HAVE BEEN PREVENTED FROM OTHER TYPES OF ASSAILANTS OR ACCIDENTS (AS OF 2001)

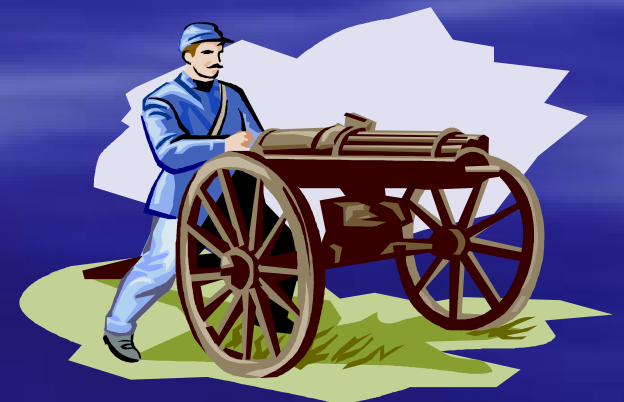
A HISTORY

- EARLY PROTECTIVE DEVICES
 - Shields made of animal skins, wood and metal
 - Suits of armor, chain link vests



ADVENT OF FIREARMS

- Previous protective devices ineffective
- Natural & man made barriers and fortifications only protection against these weapons.



SOFT BODY ARMOR

- MIDEVIL JAPANESE USED SILK
- U.S. MILITARY TRIED SILK PRIOR TO 1900 – EFFECTIVE AGAINST LOW VELOCITY BULLETS, 400 FPS OR LESS
- VARIOUS DESIGNS APPLIED FOR PATENTS DATING BACK TO 1919
- APRIL 2, 1931 WASHINGTON DC P.D., VEST DEMO PERFORMED.
- NONE WERE FEASIBLE OR EFFECTIVE ENOUGH FOR LAW ENFORCEMENT USE

THE FLAK JACKET

- MADE OF BALLISTIC NYLON
- EFFECTIVE AGAINST FRAGMENTS, NOT EFFECTIVE AGAINST PISTOL AND RIFLE FIRE.
- USED BY AIR CREWS

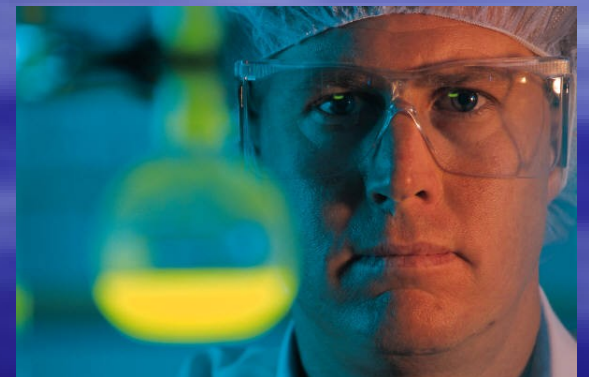


TIME FOR ACTION

- FROM 1966 THRU 1971, THE NUMBER OF LEO KILLED EACH YEAR MORE THAN DOUBLED FROM 57 TO 129
- NILECJ (PRESENT DAY NIJ) INITIATED RESEARCH PROGRAM FOR ARMOR LEO COULD WEAR FULL TIME.
- 1970'S WELCOMED KEVLAR
- MADE BY DUPONT, ORIGINALLY DEVELOPED TO REPLACE STEEL BELTING IN TIRES

TEAM EFFORT

- 1971 THRU 1976 - \$3 MILLION NIJ FUNDS WENT INTO RESEARCH FOR DEVELOPMENT OF BODY ARMOR
- SEVERAL GOVERNMENT & PRIVATE CONTRACTORS CONTRIBUTED
- IT INVOLVED 4 PHASES
 - TESTING KEVLAR FABRIC
 - LAYERS NECESSARY TO PROTECT
 - EXTENSIVE MEDICAL TESTING
 - WEARABILITY & EFFECTIVENESS



ON THE STREET

- NEW VESTS SAVED LEO LIFE 6 MONTHS AFTER BEING ISSUED
- DURING 1 YEAR DEMO PERIOD 18 SHOOTINGS OCCURRED WHERE NEW ARMOR PROTECTED LEOs'



TODAY

- TODAY DOZENS OF MANUFACTURERS PRODUCE BODY ARMOR
- OLDER, BULKIER ARMOR HAS BECOME ALL BUT OBSOLETE



WHY WEAR BODY ARMOR?

- 1ST RECORDED DEATH OF LEO IN U.S. WAS IN 1792 – NEW YORK CITY DEPUTY SHEFIFF ISAAC SMITH.
- SINCE THEN, MORE THAN **15,000** OFFICERS HAVE FALLEN IN THE LINE OF DUTY, MANY BY FIREARMS.



SOBERING UP

- SINCE 1973 AND JAN '01, 2,500 “SAVES” HAVE BEEN DOCUMENTED WITH THE USE OF BODY ARMOR
- 48% OF THESE WERE CONNECTED TO FELONIES AND 42% WITH ACCIDENTS
- 40% OF ASSAULTS INVOLVED FIREARMS; 12% CUTTING & SLASHING; 6% “OTHER”

ARMOR CLASSIFICATIONS

- TYPE I - .22 long rifle and .380 ACP
- TYPE IIA – 9mm and .40 S&W
- TYPE II - .357 magnum
- TYPE IIIA - high velocity 9mm, .44 magnum
- TYPE III – RIFLES, 7.62
- TYPE IV – armor piercing rifle, .30 caliber
- SPECIAL TYPE – for purchasers with requirements other than above threat levels
- FOR EACH “TYPE” LISTED ABOVE, THE SPECIFIED LEVEL WILL ALSO PROTECT AGAINST LOWER LEVEL THREATS

CONCLUSION

- IS BODY ARMOR OPTIONAL?
- WHAT ARE YOU WEARING FOR DUTY?
 - BRAND
 - TYPE
 - DATE MANUFACTURED
 - WARRANTY EXPIRATION DATE
 - HOW TO CARE FOR IT
- THE SURVIVOR's CLUB